CLAIMS

What is claimed is:

1.   A method comprising:

storing a clip of a media stream at a first time;

finding the clip in the media stream at second time later than the first time; and

storing a first portion of the media stream greater than and including the clip.

2.   The method of claim 1 wherein the finding comprises:

performing digital signal processing upon a window of the media stream to produce a DSP window result;

performing digital signal processing upon the clip to produce a DSP clip result; and

comparing the DSP window result to the DSP clip result.

3.   The method of claim 1 wherein the storing the portion comprises:

identifying a start point of the first portion and an end point of the first portion from the media stream; and

storing the media stream from the start point to the end point.

4.   The method of claim 1 further comprising:

again finding the clip in the media stream; and

storing another portion of the media stream greater than and including the clip.

5.   The method of claim 4 further comprising:

comparing the first portion to the other portion; and

discarding one of the portions, based on the comparison.

6.   The method of claim 1 wherein the media stream comprises audio.

7.   The method of claim 6 wherein the audio comprises broadcast radio.

1   8.   The method of claim 1 wherein the media stream comprises video.

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1   9.   The method of claim 8 wherein the media stream comprises television.

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1   10.   The method of claim 1 further comprising:

2   receiving parameters, and wherein at least one of the finding and storing are responsive to the

3   parameters.

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1   11.   The method of claim 10 wherein the parameters comprise at least one of:

2   an estimated time into the first portion that a trigger was activated;

3   a length of possible block to watch for;

4   a suspected identification of the first portion;

5   a specification of one or more broadcast stations to monitor;

6   a number of instances to save for best-instance comparison;

7   a maximum allowable price;

8   a preferred source;

9   a song style; and

10   a movie genre.

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12 12.   The method of claim 1 further comprising:

            identifying a media content item corresponding to the clip; and

3   obtaining the media content item from a source which is different than the media stream.

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1   13.   The method of claim 12 wherein the source is an on-line retailer.

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1   14.   An apparatus for playing a media stream, the apparatus comprising:

2   a receiver for receiving the stream;

3   a capture trigger;

4   a storage system coupled to the receiver to store a clip of the media stream in response to the

5   capture trigger; and

6   a processing system coupled to the storage system to search for the clip in the media stream

7 after storage of the clip.

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1   15.   The apparatus of claim 14 further comprising:

2   a block manager for storing a block of the media stream to the storage system, wherein the

3 clip is a proper subset of the block.

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1   16.   The apparatus of claim 15 wherein the media stream comprises a radio broadcast and the

2 block comprises a song.

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1   17.   The apparatus of claim 15 wherein the media stream comprises a television broadcast and the

2 block comprises a television show.

1   18.   The apparatus of claim 15 wherein the receiver is coupled to receive the media stream over a

2 wireless broadcast channel.

1   19.   The apparatus of claim 15 wherein the receiver is coupled to receive the media stream over a

2 wired broadcast channel.

1   20.   The apparatus of claim 15 further comprising:

2   an output device coupled to the receiver for playing the media stream.

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1   21.   An apparatus comprising:

2   a receiver for receiving a media stream;

3   a storage system;

4   a capture trigger; and

5   a processing system including,

6   a clip manager responsive to the capture trigger to store a first instance of a clip of the

7 media stream to the storage system,

8   a block manager responsive to at least one of the clip manager and the capture trigger

9   to search for a second instance of the clip in the media stream and to store a first block of the media

10   stream containing the second instance of the clip to the storage system.

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1   22.   The apparatus of claim 21 further comprising:

2   an output device for playing the media stream.

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1   23.   The apparatus of claim 21 wherein the block manager is further responsive to search for a

2   third instance of the clip in the media stream, to store a second block of the media stream containing

3   the third instance of the clip to the storage system.

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1   24.   The apparatus of claim 23 wherein the block manager is further responsive to compare the

2   first block to the second block and to select a better of the blocks.

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1   25.   The apparatus of claim 24 wherein the block manager is further responsive to discard one of

2   the blocks which is not the better of the blocks.

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1   26.   The apparatus of claim 23 wherein the block manager is adapted to play the first block and

2   the second block and to accept from a user a selection of one of the blocks.

3

1   27.   The apparatus of claim 26 wherein the block manager is further adapted to discard one of the

2   blocks in response to the user's selection.

3

1   28.   The apparatus of claim 21 wherein the processing system receives parameters of at least one

2   of the clip and the first block from a user.

3

1   29.   The apparatus of claim 28 wherein the parameters comprise at least one of:

2   an estimated time into the first block that the capture trigger was activated;

3   a length of possible block to watch for;

4   a suspected identification of the first block;

5   a specification of one or more broadcast stations to monitor;

6   a number of instances to save for best-instance comparison;

7   a maximum allowable price;

8   a preferred source;

9   a song style; and

10   a movie genre.

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1   30.   The apparatus of claim 21 wherein the block manager comprises:

2   means for finding an identification of the first block from a list source; and

3   means for acquiring a second block containing a third instance of the clip from a block

4 source.

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1   31.   The apparatus of claim 30 wherein the list source is a radio station's website and the block

2 source is an on-line music retailer.

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1   32.   An improved radio having a receiver for receiving a radio broadcast, the wherein

2 improvement comprises:

3   a capture trigger for causing storage of a first clip of the radio broadcast;

4   means for finding a second clip of the radio broadcast matching the first clip; and

5   means for storing a first portion of the radio broadcast containing the second clip and more.

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1   33.   The improved radio of claim 32 wherein the improvement further comprises:

2   means for identifying a start and end of a song contained in the stored first portion of the

3 radio broadcast; and

4   means for storing the song.

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1   34.   The improved radio of claim 33 wherein the improvement further comprises:

2   the means for finding further for finding a third clip of the radio broadcast matching the first

3 clip;

4   the means for storing further for storing a second portion of the radio broadcast containing

5 the third clip;

6   the means for identifying a start and end further for identifying a start and end of a second

7   instance of the song contained in the second portion of the radio broadcast; and

8   the means for storing further for storing the second instance of the song.

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1   35.   The improved radio of claim 34 wherein the improvement further comprises:

2   means for selecting one of the song and the second instance of the song; and

3   means, responsive to the means for selecting, for deleting one of the song and the second

4   instance of the song.

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1   36.   The improved radio of claim 35 wherein the improvement further comprises:

2   means for prompting a user for at least one parameter of at least one of the clip and the song.

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1   37.   The improved radio of claim 36 wherein the improvement further comprises:

2   the at least one parameter comprising at least one of,

3   an estimated time into the first block that the capture trigger was activated;

4   a length of possible block to watch for;

5   a suspected identification of the first block;

6   a specification of one or more broadcast stations to monitor;

7   a number of instances to save for best-instance comparison;

8   a maximum allowable price;

9   a preferred source;

10   a song style; and

11   a movie genre.

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1   38.   The improved radio of claim 33 wherein the improvement further comprises:

2   means for obtaining an identification of the song; and

3   means for purchasing a second instance of the song from an external source per the

4   identification.

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1   39.   The improved radio of claim 32 wherein the improvement further comprises:

2   the capture trigger comprising a button.

40. The improved radio of claim 39 wherein the improvement further comprises:

the radio being adapted for use in an automobile.

41. A method of recording a media content item substantially in its entirety from its start to its end, wherein the media content item is being received from an external source as part of a transmission which may subsequently include a repeat of the media content item, the method comprising:

during play of the media content item at a point after the start of the media content item, receiving a capture trigger;

responsive to the capture trigger, recording a clip of the transmission;

recording a first portion of the transmission subsequent to the clip;

identifying a first segment of the recorded portion as being substantially similar to the clip; and

identifying the repeat of the media content item within the first recorded portion.

42. The method of claim 41 further comprising:

retaining the repeat of the media content item in storage.

43. The method of claim 42 further comprising:

recording a second portion of the transmission subsequent to the repeat of the media content item;

identifying a second segment of the second recorded portion as being substantially similar to the clip; and

identifying a second repeat of the media content item within the second recorded portion.

44. The method of claim 43 further comprising:

retaining the second repeat of the media content item in storage.

45. The method of claim 44 further comprising:

discarding one of the repeat and the second repeat of the media content item.

46. The method of claim 45 further comprising:

receiving from a user a selection of one of the repeat and the second repeat; and

the discarding being responsive to the selection.

47. The method of claim 45 further comprising:

automatically selecting a better of the repeat and second repeat; and

the discarding being responsive to the automatically selecting, to discard the one of the repeat and the second repeat not selected as the better.

48. The method of claim 41 wherein the identifying comprises:

performing digital signal processing upon the clip and the recorded portion.

49. The method of claim 41 further comprising:

recording a second portion prior to the first portion;

determining that the clip is not found in the second portion; and

discarding the second portion.

50. An entertainment device for use with a receiver that receives entertainment content from a media stream, the entertainment device comprising:

(a) a capture trigger for identifying a clip of the entertainment content;

(b) a storage system including,

(i) a clip storage for storing the clip,

(ii) a block storage for storing a block of the entertainment content, and

(iii) a stream storage for storing portions of the entertainment content; and

(c) a processing system for performing operations upon the entertainment content and including,

(i) a clip manager responsive to the capture trigger for causing the clip storage to store the clip, and

(ii) a block manager for locating, in the stream storage, a first portion of the entertainment content which contains a substantially similar copy of the clip, and for identifying a first block of the portion within the first portion and causing the block storage to store the first block.

1 51. The entertainment device of claim 50 wherein:

2 the processing system further includes a digital signal processor for performing operations to

3 facilitate the locating and identifying.

4

1 52. The entertainment device of claim 51 wherein:

2 the block manager causes the stream storage to repeatedly store respective portions of the

3 entertainment content subsequent to activation by a user of the capture trigger, and upon determining

4 that a given portion of the respective portions does not contain a substantially similar copy of the

5 clip, the block manager causes the stream storage to discard the given portion.

6

7 53. The entertainment device of claim 52 wherein:

8 the block manager is further for identifying one or more subsequent blocks which contain

9 substantially similar copies of the clip, and for discarding at least one of the first block and

10 subsequent blocks which is of lesser quality than another of the first block and subsequent blocks.

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12 54. The entertainment device of claim 52 wherein:

2 the block manager utilizes a sliding window over the stream storage to hunt for the

3 substantially similar copy of the clip.

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1 55. The entertainment device of claim 50 wherein the entertainment device comprises a radio

2 recorder.

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1 56. The entertainment device of claim 50 wherein the entertainment device comprises a

2 television recorder.